UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/716,682	11/20/2000	Petr Peterka	GIC-535	8417

7590 01/30/2004	EXAMINER
Barry R. Lipsitz	BELIVEAU, SCOTT E

ART UNIT	PAPER NUMBER
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DATE MAILED: 01/30/2004   *5*

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☐ All   b)☐ Some * c)☐ None of:

         1.☐ Certified copies of the priority documents have been received.

         2.☐ Certified copies of the priority documents have been received in Application No. _____.

         3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

13)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application)
since a specific reference was included in the first sentence of the specification or in an Application Data Sheet.
37 CFR 1.78.

     a) ☐ The translation of the foreign language provisional application has been received.

14)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific
reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *2* .

4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: .

DETAILED ACTION

Specification

1.   The disclosure is objected to because it contains an embedded hyperlink and/or other

form of browser-executable code (ex. Page 4, Lines 14-15). Applicant is required to delete

the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01.

2.   The disclosure is objected to because of the term "a pplet" should be amended to read

"applet" (Page 29, Line 3). Appropriate correction is required.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

4.   Claims 1-3, 7, 9, 11, 14, 15, and 17 rejected under 35 U.S.C. 103(a) as being

unpatentable over Thrift et al. (of record), in view of Gong (US Pat No. 6,047,377) and in

further view of Anand et al. (US Pat No. 6,044,466).

In consideration of claims 1 and 17, the Thrift et al. reference discloses method and

means wherein a "digital television receiver" is operable to execute Java applets or "software

applications" which are "provided to" the "receiver" and are "executable in response to an

execution command" as provided by the user interactions. While the reference makes use of

the Java™ API in conjunction with the downloaded applets/showlets, the reference does not

explicitly disclose nor preclude that particular usage of a "security policy" or the usage of

such in conjunction with the "condition of the receiver".

The Gong reference discloses a method and apparatus for establishing and maintaining

security rules in conjunction such as that utilized by received and executed "software

applications" such as those associated with the JAVA™ programming language in order to

control television "receiver functions" (Col 9, Lines 36-52; Figure 5; Col 13, Line 59 – Col

15, Line 7). As illustrated in conjunction with Figure 7, the Gong reference discloses a

method whereupon an executed software application "provides a control signal for requesting

access to the receiver function upon execution of said software application" [754]; and "in

response to said control signal", the receiver comprises "data defining a condition of the

receiver under which access to the receiver function by the software application is permitted"

[444] and "determines whether an associated security policy of the software application

contains a permission for the software application to access the receiver function" [760].

Subsequently, "if the security policy" [444] (Figure 5; Col 15, Line 54 – Col 16, Line 8)

"contains said permission" the action is authorized or if the "security policy" [444] does not

contain said permission, the "software application" is "prevented from . . . accessing the

receiver function" [764/768] (Col 17, Line 33 – Col 19, Line 60). Accordingly, it would

have been obvious to one having ordinary skill in the art at the time the invention was made

to utilize the Gong teachings in conjunction with a "digital television receiver" such as that

associated with the Java-enabled television of Thrift et al. for the purpose of providing a

mean by which to implement security in conjunction such that downloaded applets are

limited in their access to receiver functions in a manner that reduces the effort and in-depth

knowledge required to modify permissions established for the sources of code (Gong: Col 1, Line 27 – Col 2, Line 49).

The Gong et al. reference further, suggests that the "security policy" may further utilize multiple "conditions" in conjunction with the particular policy rule such as particular rules corresponding to a particular cable company or to maximum transaction amounts (Col 11, Lines 55-62; Col 16, Lines 47-55), however, it is unclear if these particular "conditions" necessarily relate to the "condition" or "current state of the receiver". The Anamd et al. reference discloses a method for flexible and dynamic derivation of permissions in conjunction with a JAVA application. In particular, the embodiment is operable to "provide data defining a condition of the receiver under which access to the receiver function by the software application is permitted" and presuming the "security policy" contains such a permission, the embodiment "allows" or "prevents the software application from accessing the receiver function" on the further basis of "data indicative of a current state of the receiver" or runtime state of the receiver (Col 3, Lines 14-35). Accordingly, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the combined references so as to further utilize the run-time or "current state of the receiver" in conjunction with the further determination of the permission for the purpose of providing ad hoc mechanisms for flexibly and dynamically limiting the rights that are to be delectated to the content that they execute (Anamd et al.: Col 3, Lines 1-12).

Claims 2 and 3 are rejected wherein the "condition indicates a conditional access state of the receiver" comprising an "authorization state" wherein the condition locally defines to which receiver functions the software application is "authorized" to perform.

Claim 7 is rejected wherein the "condition is defined, at least in part, by said software application" in so far as the software application in light of Anamd et al. defines the maximal permissions available.

In consideration of claim 9, the Gong reference discloses that the "software application is downloadable to the receiver" via a network link [120] using a communication interface [118] such as a modem, however the reference does not explicitly disclose nor preclude that the aforementioned network link [120] is necessarily associated with a broadband television network (Col 5, Line 14 – Col 6, Line 9). Accordingly, it would have been obvious to one having ordinary skill in the art at the time of the invention to utilize a "broadband television network" such as that associated with cable modem transmissions for the purpose of providing a means for transmitting/receiving software applications via a high-bandwidth delivery method.

Claim 11 is rejected wherein the "software application comprises a JAVA code" (Gong: Col 11, Lines 10-15).

Claim 14 is rejected wherein the "condition is embedded in code that defines the permission" in conjunction with the policy file [444].

In consideration of claim 15, as aforementioned, the "software application" may be distributed via the Internet (Col 1, Lines 60-65; Col 5, Lines 47-61). The combined references, however, do not explicitly disclose nor preclude the distribution of such applications via "multicasting". Accordingly, it would have been obvious to one having ordinary skill in the art at the time of the invention so as to distribute the "software applications" via "multicasting" for the purpose of distributing the application software from

a single host to a large audience or "receiver population" in a manner that conserves

bandwidth and reduces traffic through the simultaneous delivery of the "software

application" to multiple "receivers".

5.   Claims 1-6, 8, 10, 12, 13, 16, and 17 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Ellis et al. (US Pat No. 6,665,869) in view of McRae (US Pat No.

        In consideration of claims 1 and 17, the Ellis et al. reference discloses a "security

method" for controlling access to a "function" of a "digital television receiver" [24]. The

method involves "providing a software application" [58/60/62/64] that are "executable in

response to an execution command". Using the parental control resource [68a], the user is

operable to "provide data defining a condition under which access to the receiver function by

the software application is permitted" (Col 6, Lines 23-24). Subsequently, a "control signal

for requesting access to the receiver function" [68f] such as the tuner is provided "upon

execution of said software application" and "in response to said control signal, the

embodiment determines whether an associated security policy of the software application

contains a permission for the software application to access the receiver function" (Col 6,

Lines 27-31, 39-42). Accordingly, the "security policy" as defined in conjunction with the

parental control criteria determines whether or not particular "software applications" such as

those requesting particular programs are capable of accessing receiver functions associated

with the tuning of a program. The Ellis et al. reference, however, does not explicitly disclose

details pertaining to the composition of the "conditions" in view of the "current state of the

receiver".

The McRae reference discloses a "security policy" of a parental control system wherein "if said security policy contains said permission" to tune to a particular channel, the embodiment further "determines whether said condition of the receiver is met by data indicative of a current state of the receiver". Accordingly, the "software application is allowed to "access the receiver function if the condition is met" such that receiver may display a particular channel or is "prevented from accessing the receiver function if the condition is not met" wherein the "condition" is "not met" (Col 4, Line 44 – Col 5, Line 3). Accordingly, it would have been obvious to one having ordinary skill in the art at the time of the invention to utilize the parental control teachings of McRae in conjunction with the Ellis for the purposes of providing a parental control means that further utilizes the "condition of the receiver" and further simplifies user programming of such (Col 3, Line 36 – Col 4, Line 41).

Claims 2 and 3 are rejected wherein the "condition indicates a conditional access state of the receiver" comprising an "authorization state" wherein the condition of McRae indicates which programs a viewer is authorized or allowed to view.

Claims 4-6 are rejected wherein the "condition indicates a user state of the receiver" comprising parental "user preferences" as well as the current "time" [44] of the receiver upon which a viewer is attempting to view a particular program (McRae: Col 9, Lines 56-67).

Claim 8 is rejected wherein the "condition indicates that one of a channel and a group of channels is tuned by the receiver" (McRae: Col 9, Lines 56-67).

Claim 10 is rejected wherein as illustrated in Figure 2A of McRae, the combined references "provide a user interface to allow a user to define, at least in part, the permission

of the security policy" wherein the "permission" allows the user to tune to a particular

channel at a particular time.

Claim 12 is rejected wherein the "execution command is initiated by a user" in

conjunction with the operation/execution of the " software applications" [58/60/62/64] via

the remote control device [30a] (Ellis: Col 4, Line 8-18).

Claim 13 is rejected wherein the "permission is associated with a user of the receiver"

wherein a parent or user with the appropriate password may define the permissions

associated with tuning functions for another user.

Claim 16 is rejected wherein as illustrated in Figure 2A of McRae, the combined

references "provide a user interface to allow a user to define, at least in part, the data defining

said condition" wherein the "condition" defines the particular time that a viewer is allowed to

tune to a particular channel at a particular time.

6.   Claims 1 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thrift et

al. (of record), in view of Gong (US Pat No. 6,047,377) and in further view of Ahmad (US

Pat No. 5,925,127).

In consideration of claims 1 and 17, the Thrift et al. reference discloses method and

means wherein a "digital television receiver" is operable to execute Java applets or "software

applications" which are "provided to" the "receiver" and are "executable in response to an

execution command" as provided by the user interactions. While the reference makes use of

the Java™ API in conjunction with the downloaded applets/showlets, the reference does not

explicitly disclose nor preclude that particular usage of a "security policy" or the usage of

such in conjunction with the "condition of the receiver".

The Gong reference discloses a method and apparatus for establishing and maintaining security rules in conjunction such as that utilized by received and executed "software applications" such as those associated with the JAVA™ programming language in order to control television "receiver functions" (Col 9, Lines 36-52; Figure 5; Col 13, Line 59 – Col 15, Line 7). As illustrated in conjunction with Figure 7, the Gong reference discloses a method whereupon an executed software application "provides a control signal for requesting access to the receiver function upon execution of said software application" [754]; and "in response to said control signal", the receiver comprises "data defining a condition of the receiver under which access to the receiver function by the software application is permitted" [444] and "determines whether an associated security policy of the software application contains a permission for the software application to access the receiver function" [760]. Subsequently, "if the security policy" [444] (Figure 5; Col 15, Line 54 – Col 16, Line 8) "contains said permission" the action is authorized or if the "security policy" [444] does not contain said permission, the "software application" is "prevented from . . . accessing the receiver function" [764/768] (Col 17, Line 33 – Col 19, Line 60). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the Gong teachings in conjunction with a "digital television receiver" such as that associated with the Java-enabled television of Thrift et al. for the purpose of providing a mean by which to implement security in conjunction such that downloaded applets are limited in their access to receiver functions in a manner that reduces the effort and in-depth knowledge required to modify permissions established for the sources of code (Gong: Col 1, Line 27 – Col 2, Line 49).

The Gong et al. reference further, suggests that the "security policy" may further utilize multiple "conditions" in conjunction with the particular policy rule such as particular rules corresponding to a particular cable company or to maximum transaction amounts (Col 11, Lines 55-62; Col 16, Lines 47-55), however, it is unclear if these particular "conditions" necessarily relate to the "condition" or "current state of the receiver".

The Ahmad reference describes a software based pay-per-use software module rental system wherein the embodiment is operable to "provide data defining a condition of the receiver under which access to the receiver function by the software application is permitted" such as a particular duration of time in conjunction with the terms of use of the software and presuming the "security policy" contains such a permission, the embodiment "allows" or "prevents the software application from accessing the receiver function" on the further basis of "data indicative of a current state of the receiver" (Col 2, Line 11 – Col 3, Line 5). Accordingly, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the combined references so as to further utilize the run-time or "current state of the receiver" in conjunction with the further determination of the permission for the purpose of facilitating a business method wherein software applications may be rented for a set period of time (Ahmad: Col 1, Lines 61-65). For example, when taken in combination the reference would provide a method wherein a user may download an interactive Java™ applet to their television receiver on a rental basis wherein the security policy may defines application resource conditions to access resource functions (Gong et al.) that are only allowed pending the current state of the receiver as defined by the terms and conditions of the rental of the software application.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure as follows. Applicant is reminded that in amending in response to a rejection of claims, the patentable novelty must be clearly shown in view of the state of the art disclosed by the references cited and the objections made.

- The Safadi et al. (US Pat No. 6,256,393) reference discloses a method for providing authentication, authorization and access control of software objects residing in digital set-top terminals. This reference does not currently qualify as prior art under 35 U.S.C. 102 in view of the applicant's priority under 35 U.S.C. 119(e).

- The Wiegel (US Pat No. 6,484,261) reference discloses a method of establishing a representation of an abstract network security policy.

- The Koved (US Pat No. 5,915,085) reference discloses a system and method for creating flexible security control mechanisms and virtualization of nominally shared system resources.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Beliveau whose telephone number is 703-305-4907. The examiner can normally be reached on Monday-Friday from 9:00 a.m. - 6:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Miller can be reached on 703-305-4795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is 703-308-HELP.

SEB
January 19, 2004

JOHN MILLER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600